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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Matthews, Peter et al
Serial No.:
Filed:
For: Corn Degermination Process

Group No.:
Examiner:



**Assistant Commissioner for Patents
Washington, D.C. 20231**

INFORMATION DISCLOSURE STATEMENT

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

1. Preliminary Statements
2. Forms PTO 1449 (now PTO/SB/08A and 08B)
3. Copies of Listed Information Items Accompanying This Statement
4. Concise Explanation of English Language Listed Information Items
5. Identification of Person(s) Making This Information Disclosure Statement

Section 1. Preliminary Statements

Applicant(s) submits herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.


The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 CFR 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this Information Disclosure Statement and the documents referred to as attached thereto are being deposited with the United States Postal Service on the date listed below, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number ET 100 563 389 US, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Date

12-4-01


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The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Section 2. PTO 1449 (Now Forms PTO/SB/08A and 08B)

PTO Form 1449 is attached hereto.

Section 3. Copies of Listed Information Items Accompanying This Statement

Legible copies of all items listed in Form PTO-1449 accompany this information statement.

Section 4. Concise Explanation of English Language Listed Information Items

1. U. S. Patent No. 3,104,692 issued to Davis et al dated September 24, 1963

Discloses an apparatus for removing skin hull from safflower including spaced rollers having "V" formed threads on their outer sides.

2. U. S. Patent No. 4,066,012 issued to Satake et al dated January 3, 1978

Discloses a roller type huller including spaced hulling rolls, one of the rollers supported on a moveable shaft for adjustment of the spacing between the rollers.

3. U. S. Patent No. 4,181,748 issued to Chwalek, et al dated January 1, 1980

Describes a combined dry-wet milling process for refining corn comprising dry milling corn kernels to provide an endosperm fraction, a germ fraction, a fiber (hull) fraction and a cleanings fraction, wet milling the endosperm fraction including using two distinct steeping steps, one upstream and the other downstream of an impact milling step, to provide a mill starch slurry. The process further comprises removing fine fiber tailings from the mill starch slurry, separating the slurry into a starch-rich fraction and protein-rich fraction, concentrating the protein-rich fraction, directly combining the fiber (hull), cleanings, fine fiber tailings and protein-rich concentrate without removing corn oil therefrom, with the germ fraction to provide a wet animal feed product, and drying the feed product.

4. U. S. Patent No. 4,301,183 issued to Giguere et al dated November 17, 1991

Discloses a method and apparatus for degerminating a grain kernel by impelling the kernels along a guide vane into an impact surface: A method and apparatus for utilizing a horizontal disc having a plurality of guide vanes extending in a curvilinear path with each vane terminating in an end portion that is substantially parallel to a tangent to the disc. A plurality of impact surfaces are provided in the same horizontal plane as the disc with each surface being substantially linear and extending transversely of the path of travel of a kernel impelled by the disc.

5. U. S. Patent No. 5,073,201 issued to Giesfeldt et al dated December 17, 1991

Discloses a corn wet-milling process wherein corn kernels are first softened by soaking them in water containing sulfur dioxide and then coarsely grinding the kernels with water in order to free the germ. The germ is separated from the other solid components of the corn kernel by passing the resulting slurry into a hydroclone. The underflow from the hydroclone, which contains starch, protein and fiber is then ground in an impact-type mill followed by screening to separate crude mixed fiber from the finer particles of starch and protein.

6. U. S. Patent No. 5,250,313 to issued to Giguere dated October 5, 1993

(A continuation-in-part of U. S. Patent No. 4,189,503). Discloses a degerminating process wherein the grain kernels are crushed from the thin edges toward the center while avoiding crushing of the relatively flat side surfaces. The crushing force fractures the endosperm under and around the germ and squeezes the germ away from the endosperm. A machine for carrying out the degermination includes relatively rotating discs having corrugations in their facing surfaces in which the kernels are caught and crushed from the thin edges toward the center. An alternative degerminator machine includes a single rotating disc having curved guide vanes on its upper surface for guiding the kernels as they are propelled outwardly by centrifugal force.

7. U. S. Patent No. 5,678,477 issued to Satake et al dated October 21, 1997

Discloses a rice husking apparatus including spaced rollers and a supply mechanism for controlling minimum husking throughput.

8. U. S. Patent No. 6,254,914 issued to Singh et al dated July 3, 2001

Describes a wet-milling process for recovery of corn coarse fiber (pericarp) including the steps of: soaking corn in water to loosen the attachments of various grain components therein to each other, degerminating the soaked corn to strip the corn coarse fiber and the germ away from the endosperm, recovering the germ, and recovering the corn coarse fiber by flotation. The degerminating step of such process involves grinding the kernels in a degermination mill such as a Bauer mill so that the pericarp and germ are stripped away from the endosperm.

Section 5. Identification of Person(s) Making This Information Disclosure Statement

The person making this statement is:

- (a) ☐ the inventor(s) who signs below.
- (b) ☐ an individual associated with the filing and prosecution of this application.
- (c) ☒ the practitioner who signs below on the basis of the information:
 - ☐ supplied by the inventor(s).
 - ☐ supplied by an individual associated with the filing and prosecution of this application (37 CFR 1.56(c))
 - ☒ in the practitioner's file.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'K. A. Keeling', with a stylized flourish at the end.

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Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION <i>(Use several sheets if necessary)</i>	Docket Number (Optional)	Application Number
	Applicant Matthews, Peter et al	
	Filing Date	Group Art Unit

U.S. PTO
 004742

JCS35 U.S. PTO
 10/004742
 12/04/01

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, Etc.)

EXAMINER		DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			